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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,934	04/12/2004	Osamu Shimomura	2018-876	2148

23117 7590 09/11/2007  
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EXAMINER

AURORA, REENA

ART UNIT	PAPER NUMBER
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2862

MAIL DATE	DELIVERY MODE
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09/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/821,934	SHIMOMURA ET AL.	
	Examiner	Art Unit	
	Reena Aurora	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2 - 6, 13, 19 - 20, 22 and 24 - 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 - 25 is/are allowed.
- 6) ☒ Claim(s) 2, 3, 5, 6, 13, 19 and 22 is/are rejected.
- 7) ☒ Claim(s) 4 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This communication is in response to amendment received on 8/28/07.

Claims 2 – 6, 13, 19 – 20, 22 and 24 - 25 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2 – 3, 5 – 6, 13, 19 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Sekiya (6,879,150).

As to claims 2 – 3 and 5 - 6, Sekiya discloses a magnetic position sensor comprising: a magnetic flux generating means (10, fig. 1) including a magnet for generating magnetic fluxes; a magnetism sensing element (40) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (10) and the magnetism sensing element (40) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (50) for passing therethrough a part of the magnetic fluxes generated by the magnet (10) thereby to reduce the magnetic fluxes passing through the magnetism sensing element only when the relative turning angle between the magnetic flux generating means (10)

and the magnetism sensing element (40) is within a predetermined range of turning angles, wherein at least one of said- magnetic flux reducing means and said magnetic flux generating means (10) is rotatable relative to the other of said magnetic flux reducing means (50) and said magnetic flux generating means, and wherein the magnetic flux reducing means (50) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough, and wherein the magnetic flux generating means (10) includes a magnetic flux passage means (magnet to sensor), provided separately from the magnetic flux reducing means (50), for forming a magnetic path different from that of the magnetic flux reducing means (50) (Note fig. 3A, 3B, 3C ).

As to claims 13 and 22, Sekiya discloses a magnetic position sensor comprising: a magnetic flux generating means (10, fig. 1) including a magnet for generating magnetic fluxes; a magnetism sensing element (40) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (10) and the magnetism sensing element (40) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (50) for passing therethrough a part of the magnetic fluxes generated by the magnet (10) thereby to reduce the magnetic fluxes passing through the magnetism sensing element (40) only when the relative turning angle between the magnetic flux generating means (10) and the magnetism sensing element (40) is within a predetermined range of turning angles, wherein the magnetic flux reducing means (50) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough, wherein

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the magnetic flux generating means (10) includes two generally semi- cylindrical yokes made of magnetic material and sandwiching the magnet between respective circumferential ends; and wherein the yokes have an inside shape of an ellipse (fig. 1 ).

As to claims 19 and 23, Sekiya discloses a magnetic position sensor comprising: a magnetic flux generator (10) including a magnet for generating magnetic fluxes; a magnetism sensing element (40) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generator (10) and the magnetism sensing element (40) from the magnetic fluxes passing therethrough; and a magnetic flux reducer (50) for passing therethrough a part of the magnetic fluxes generated by the magnet thereby to reduce the magnetic fluxes passing through the magnetism sensing element (40) only when the relative turning angle between the magnetic flux generator (10) and the magnetism sensing element (40) is within a predetermined range of turning angles, wherein at least one of said magnetic flux- reducer and said magnetic flux generator (10) is rotatable relative to the other of said magnetic flux reducer (50) and said magnetic flux generator, and wherein the magnetic flux reducer (50) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough, and wherein the magnetic flux generating means (10) includes a magnetic flux passage means (magnet to sensor), provided separately from the magnetic flux reducing means (50), for forming a magnetic path different from that of the magnetic flux reducing means (50) (Note fig. 3A, 3B, 3C ).

***Allowable Subject Matter***

Claims 4 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 24 and 25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 4, 20 and 24 – 25, the prior art fails to show the magnet is divided into two generally semi-cylindrical magnet parts and magnetized in a radial direction; and the magnetism sensing element is disposed between the magnet parts so that the magnetic fluxes pass from one of the magnet parts to the other of the magnet parts through the magnetism sensing element. These features taken together with the other limitations of the claim renders the claims allowable over prior art.

***Response to Arguments***

Applicant's arguments with respect to claims 2 – 6, 13, 19 – 20 and 24 - 25 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Reena Aurora

  
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